IN THE UNITED STATES DISTRICT COURT FOR THE WESTERN DISTRICT OF TEXAS WACO DIVISION

EPISTAR CORP.,	§	
Plaintiff,	§ 8	C.A. 6:22-CV-00526-ADA
V.	8 §	C.A. 0.22-C V-00320-ADA
	§	JURY TRIAL DEMANDED
AMAZON.COM, INC.,	§	
Defendant.	8 8	
Defendant.	8	

FIRST AMENDED COMPLAINT FOR PATENT INFRINGEMENT

Plaintiff Epistar Corporation ("Epistar" or "Plaintiff") hereby asserts claims for infringement of United States Patent Nos. 7,705,344; 9,530,934; 10,199,542; 10,505,076; 9,257,604; 10,181,549; 10,522,715; 9,293,656; 9,893,257; 10,038,129; 8,963,123; 9,425,362; and 7,821,026 (the "patents-in-suit"; attached hereto as Exhibits 1–13 respectively) against Defendant Amazon.com, Inc. ("Amazon" or "Defendant"), and alleges as follows:

INTRODUCTION

- 1. Epistar is a premier manufacturer of light-emitting diodes ("LEDs"). It was founded in 1996 by a handful of engineers and entrepreneurs with a vision to make solid-state LED lighting ubiquitous in everyday life. Since that time, Epistar has grown from a fledgling start-up to one of the world's largest LED suppliers and received many industry accolades along the way. Today, Epistar produces LEDs for computers, smart phones, television displays, lighting, automobiles, and sensors. Epistar counts many of the world's most well-known companies, including Amazon, among its customers.
- 2. Epistar's industry recognition and commercial success are results of its relentless focus on technological innovation to enhance its products and the products they illuminate. Epistar invests heavily in research and development and, as a result, frequently invents new devices with superior characteristics and performance.

3. Indicative of its wide-ranging innovations, Epistar has received more than 4,500 patents worldwide, including more than 1,500 U.S. patents, including the patents-in-suit. The innovations captured by these patents cover many important aspects of LEDs, including, for example, their structure and fabrication. These innovations enhance quality, reliability, and durability, among others, of LEDs.

AMAZON'S CONTINUING INFRINGEMENT FORCES THIS SUIT

- 4. In 2019, it came to Epistar's attention that Amazon was selling products containing LED chips that practiced Epistar's patented inventions. Amazon's Echo devices, for example, appeared to practice inventions protected by one or more patents in Epistar's vast portfolio, including U.S. Patent Nos. 9,257,604; 9,425,362; 9,530,934; 9,893,257; and 10,199,542 among the patents-in-suit. Epistar invited Amazon to discuss a mutually beneficial license. But Amazon ignored Epistar's invitation.
- 5. Recently, Epistar became aware that additional Amazon devices contained LED chips that practiced Epistar's patented inventions. These include, for example, certain models in Amazon's Fire TV lineup, such as 43" and 50" 4-Series and Omni Series televisions. Epistar again reached out to Amazon with an invitation to work collaboratively on a business solution. Amazon again did not respond in kind.
- 6. To confirm infringement, Epistar purchased a 43" 4-Series 4K UHD Amazon Fire TV, available at https://www.amazon.com/dp/B08SWD2SCK/?tag=pnow-20&th=1 from Amazon, delivered to an address in the United States:



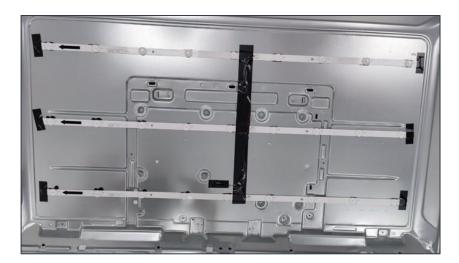
7. The unit powered up with the Fire TV emblem:



8. Product information including model number is shown on the back cover:



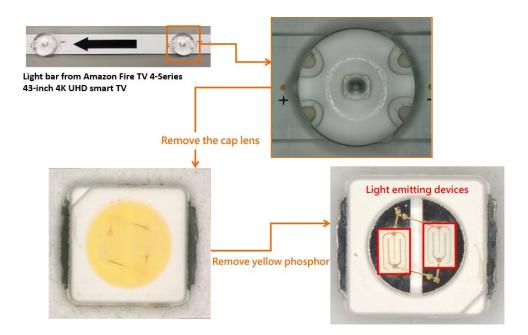
9. Epistar proceeded with a tear-down analysis of the unit. The Amazon Fire TV comprises three LED backlight strips on the inside of back cover, which can be seen after removing the LCD panel and backlight optical module:



10. A close-up of an LED backlight strip is shown below:



11. The light bars comprise LEDs, which are the circular objects on the backlight strips. The tear-down analysis involves removing the cap lens from an LED and a phosphor layer to reveal the LED chips underneath:



- 12. Further tear-down analysis steps and results are shown in the infringement charts for each patent-in-suit. *See infra* Counts I–XIII, Exs. A-M. They confirm Epistar's contention that Amazon devices infringe Epistar's patents.
- 13. Epistar's investment in its intellectual property has suffered loss from Amazon's infringement of Epistar's patented inventions. In the face of Amazon's continuing and expanding unauthorized use of Epistar's patented technology, Epistar has no choice but to bring this suit.

THE PARTIES

- 14. Plaintiff Epistar Corp. is a Taiwanese corporation headquartered at 21 Li-Hsin Road, Hsinchu Science Park, Hsinchu 300, Taiwan. Epistar is the owner of the patents-in-suit. Epistar holds all substantial rights, title and interest in and to them.
- 15. Upon information and belief, Defendant Amazon.com Inc. is a corporation organized under the laws of Delaware, with a principal place of business at 410 Terry Avenue North, Seattle, Washington 98109. Amazon is one of the largest online retailers in the world. Amazon has offices in and employees working in the Western District of Texas, and conducts brick-and-mortar retail and online retail operations in this District. Amazon distributes its products, including the infringing products at issue in this litigation, throughout the United States, including Texas and in this District.

16. Amazon directly and/or indirectly develops, distributes, markets, offers to sell, sells, and/or imports the infringing Amazon devices at issue in this litigation in/into the United States, including in this District, and otherwise purposefully directs infringing activities to this District in connection with its infringing Amazon devices.

JURISDICTION AND VENUE

- 17. This action for patent infringement arises under the Patent Laws of the United States, 35 U.S.C. § 1 et. seq. This Court has original jurisdiction under 28 U.S.C. §§ 1331 and 1338.
- 18. This Court has personal jurisdiction over Amazon because, pursuant to Fed. R. Civ. P. 11(b)(3), Amazon has: (1) availed itself of the rights and benefits of the laws of the State of Texas, (2) transacted, conducted, and/or solicited business and engaged in a persistent course of conduct in the State of Texas (and in this District), (3) derived substantial revenue from the sales and/or use of products, including the infringing Amazon devices, in the State of Texas (and in this District), (4) purposefully directed activities (directly and/or through intermediaries), such as shipping, distributing, offering for sale, selling, and/or advertising its infringing Amazon devices, at residents of the State of Texas (and residents in this District), (5) delivered its infringing Amazon devices into the stream of commerce with the expectation that the Amazon devices will be used and/or purchased by consumers, and (6) committed acts of patent infringement in the State of Texas (and in this District).
- 19. This Court also has personal jurisdiction over Amazon because it is registered to do business in the State of Texas and has one or more regular and established places of business in the Western District of Texas.
- 20. Venue is proper in this District under the provisions of 28 U.S.C. § 1400(b) because, as noted above, Amazon has committed acts of infringement in this district and has one or more regular and established places of business in this district. For example, on information and belief, Amazon operates a fulfillment center in this District at 1878 Exchange Parkway, Waco,

Texas, 76712. Amazon has also admitted that venue is proper in this District for various patent cases. *See e.g., Flygrip, Inc. v. Amazon.com, Inc.* (WDTX Case No. WDTX-6-21-cv-01081).

THE PATENTS-IN-SUIT

U.S. Patent No. 7,705,344

- 21. Epistar is the owner of U.S. Patent No. 7,705,344 (the "'344 Patent"), entitled "Light-emitting device," which was duly and legally issued by the United States Patent and Trademark Office ("USPTO") on April 27, 2010. A copy of the '344 Patent is attached hereto as Exhibit 1.
- 22. The '344 Patent relates generally to structure of LEDs, and more particularly to an LED with a multi-quantum-well active layer. '344 Patent, 1:5-7
- 23. The '344 Patent provides an unconventional LED design that can, for example, improve light-emitting efficiency. *Id.* at 2:8-10. Specifically, the '344 Patent discloses LEDs having "an active layer between the n-type and p-type semiconductor layers." *Id.* at 1:53-55. This active layer is partitioned into three regions with "a first region near the n-type semiconductor layer, a second region near the p-type semiconductor layer, and a third region between the first and second regions." *Id.* at 1:55-58. In an embodiment, the active layer can further include n-type doping in the different regions such that the first and second regions are doped while the third region is either undoped or doped at a lower concentration than either region. *Id.* at 1:58-63.
- 24. In line with these teachings, the '344 Patent claims devices comprising this technology innovation. For example, claim 1 of the '344 Patent recites, *inter alia*, an LED comprising an n-type semiconductor layer; a p-type semiconductor layer; and an active layer between the n-type and p-type semiconductor layers, comprising a first region near the n-type semiconductor layer, a second region near the p-type semiconductor layer, and a third region between the first and second regions, wherein each of the first region, the second region, and the third region at least comprises a barrier layer and a well layer, the first and second regions are

doped with n-type dopants and the third region is undoped or doped with the n-type dopants having a concentration lower than that in the first region and that in the second region. *See* '344 Patent, claim 1.

U.S. Patent No. 9,530,934

- 25. Epistar is the owner of U.S. Patent No. 9,530,934 (the "'934 Patent"), entitled "Light-emitting device," which was duly and legally issued by the USPTO on December 27, 2016. A copy of the '934 Patent is attached hereto as Exhibit 2.
- 26. The '934 Patent relates generally to the electrode structure of LEDs. '934 Patent, 1:5–8.
- 27. The '934 Patent provides an unconventional LED design that can, for example, improve the reliability of the device. Specifically, the '934 Patent discloses LEDs comprising, *inter alia*, a "finger electrode includ[ing] a first portion extended from the periphery of [a] pad electrode," "the first portion includ[ing] a first side," and "the first side includes a first arc having a first curvature radius, and the first curvature radius is larger than 10 μm." *Id.* at 1:25–34.
- 28. In line with these teachings, the '934 Patent claims devices comprising this technology innovation. For example, claim 1 of the '934 Patent recites, *inter alia*, an LED comprising a finger electrode connected to a pad electrode, wherein the finger electrode comprises a first portion extended from a periphery of the pad electrode, the first portion comprises a first side, which comprises a first arc comprising a first curvature radius, and the first curvature radius is larger than 10 μm. *See* '934 Patent, claim 1.

U.S. Patent No. 10,199,542

- 29. Epistar is the owner of U.S. Patent No. 10,199,542 (the "'542 Patent"), entitled "Light-emitting device," which was duly and legally issued by the USPTO on February 5, 2019. A copy of the '542 Patent is attached hereto as Exhibit 3.
- 30. The application leading to the '542 Patent is continuation-in-part of the application that led to the '934 Patent. Thus, the '542 and the '934 Patents share essentially the same

specification. Epistar incorporates by reference and re-alleges paragraphs 25–28 of this First Amended Complaint as if fully set forth herein.

- 31. Like the '934 Patent, the '542 Patent relates generally to the electrode structure of LEDs.
- 32. For example, claim 12 of the '542 Patent recites *inter alia*, an LED comprising a second semiconductor layer; a first pad electrode comprising a periphery; and a first finger electrode connected to the first pad electrode, wherein the first finger electrode comprises a first portion extended from the periphery of the first pad electrode and a second portion connected to the first portion, the first portion comprises a first side and a second side opposite to the first side, the first side and/or the second side comprises a curvature radius, wherein a shortest distance between the first pad electrode and an edge of the second semiconductor layer is larger than a shortest distance between the first finger electrode and an edge of the second semiconductor layer. *See* '542 Patent, claim 12.

U.S. Patent No. 10,505,076

- 33. Epistar is the owner of U.S. Patent No. 10,505,076 (the "'076 Patent"), entitled "Light-emitting device," which was duly and legally issued by the USPTO on December 10, 2019. A copy of the '076 Patent is attached hereto as Exhibit 4.
- 34. The application leading to the '076 Patent is continuation of the application that led to the '542 Patent. Thus, the '076 and the '542 Patents share the same specification and the '076 and the '934 Patents share essentially the same specification. Epistar incorporates by reference and re-alleges paragraphs 25–32 of this First Amended Complaint as if fully set forth herein.
- 35. Like the '542 and '934 Patents, the '076 Patent relates generally to the electrode structure of LEDs.
- 36. For example, claim 12 of the '076 Patent recites *inter alia*, an LED comprising a first pad electrode comprising a first periphery; a first finger electrode connected to the first pad electrode, wherein the first finger electrode comprises a first portion extended from the first

periphery of the first pad electrode and a second portion connected to the first portion, the first portion comprises a width decreasing in a direction away from the first periphery of the first pad electrode, and wherein the first portion comprises a first side and a second side, the first side is opposite to the second side, the first side comprises a first arc comprising a first curvature radius, and the second side comprises a second arc comprising a second curvature radius. *See* '076 Patent, claim 12.

U.S. Patent No. 9,257,604

- 37. Epistar is the owner of U.S. Patent No. 9,257,604 (the "'604 Patent"), entitled "Light-emitting device having a patterned surface," which was duly and legally issued by the USPTO on February 9, 2016. A copy of the '604 Patent is attached hereto as Exhibit 5.
- 38. The '604 Patent relates generally to LEDs having a patterned surface to "enhanc[e] the light extraction efficiency." '604 Patent, 1:20–21, 3:44–52.
- 39. The '604 Patent provides an unconventional LED design that can, for example, improve light extraction efficiency. Specifically, the '604 Patent discloses LEDs comprising, *inter alia*, a pattern surface that is substantially not parallel to the corresponding region of the upper surface of the active layer. *See, e.g.*, *id.* at 3:49–52.
- 40. In line with these teachings, the '604 Patent claims devices comprising this technology innovation. For example, claim 1 of the '604 Patent recites, an LED comprising a substrate having a top surface and a first patterned unit bulged on the top surface; and a light-emitting stack formed on the substrate and having an active layer with a first surface substantially parallel to the top surface; wherein a base of the first patterned unit has a non-polygon shape in a top view, and in a cross-sectional view the first patterned unit has a vertex, a first inclined line segment, and a second inclined line segment, and the first inclined line segment and the second inclined line segment connect at the vertex. See '604 Patent, claim 1.

U.S. Patent No. 10,181,549

- 41. Epistar is the owner of U.S. Patent No. 10,181,549 (the "'549 Patent"), entitled "Light-emitting device having a patterned surface," which was duly and legally issued by the USPTO on January 15, 2019. A copy of the '549 Patent is attached hereto as Exhibit 6.
- 42. The application leading to the '549 Patent is continuation of the application that led to the '604 Patent. Thus, the '549 and the '604 Patents share the same specification. Epistar incorporates by reference and re-alleges paragraphs 37–40 of this First Amended Complaint as if fully set forth herein.
- 43. Like the '604 Patent, the '549 Patent relates generally to LEDs having a patterned surface to enhance the light extraction efficiency.
- 44. For example, claim 1 of the '549 Patent recites *inter alia*, an LED comprising a substrate having a top surface and a plurality of patterned units protruding from the top surface of the substrate; and a light-emitting stack formed on the substrate and having an active layer with a first surface substantially parallel to the top surface of the substrate, wherein each of the plurality of patterned units comprises a circular shape in a top view of the light-emitting device, wherein the plurality of patterned units comprises two curves with different curvatures in a cross-sectional view of the light-emitting device. *See* '549 Patent, claim 1.

U.S. Patent No. 10,522,715

- 45. Epistar is the owner of U.S. Patent No. 10,522,715 (the "'715 Patent"), entitled "Light-emitting device having a patterned surface," which was duly and legally issued by the USPTO on December 31, 2019. A copy of the '715 Patent is attached hereto as Exhibit 7.
- 46. The application leading to the '715 Patent is continuation of the application that led to the '549 and '604 Patents. Thus, the '715, '549 and '604 Patents share the same specification. Epistar incorporates by reference and re-alleges paragraphs 37–44 of this First Amended Complaint as if fully set forth herein.
- 47. Like the '549 and '604 Patents, the '715 Patent relates generally to LEDs having a patterned surface to enhance the light extraction efficiency.

48. For example, claim 1 of the '715 Patent recites *inter alia*, an LED comprising a substrate having a top surface and a plurality of patterned units protruding from the top surface of the substrate; and a light-emitting stack formed on the substrate and having an active layer with a first surface substantially parallel to the top surface of the substrate, wherein each of the plurality of patterned units comprises a circular shape in a top view of the light-emitting device, wherein each of the plurality of patterned units comprises a cross-section comprising a width and a depth smaller than the width. *See* '715 Patent, claim 1.

U.S. Patent No. 9,293,656

- 49. Epistar is the owner of U.S. Patent No. 9,293,656 (the "'656 Patent"), entitled "Light emitting device," which was duly and legally issued by the USPTO on March 22, 2016. A copy of the '656 Patent is attached hereto as Exhibit 8.
- 50. The '656 Patent relates generally to LEDs having an efficient electrode structure to improve their reliability. '656 Patent, 1:12–32.
- 51. The '656 Patent provides an unconventional LED design that can, for example, improve the total light emitting efficiency and reduce inter-layer diffusion. Specifically, the '656 Patent discloses LEDs comprising, *inter alia*, a barrier layer between a conductive layer and the mirror layer to separate the two. *See, e.g., id.* at 2:64–3:3.
- 52. In line with these teachings, the '656 Patent claims devices comprising this technology innovation. For example, claim 1 of the '656 Patent recites, an LED comprising an electrode structure on a second semiconductor layer, wherein the electrode structure comprises a bonding layer, a conductive layer, and a first barrier layer between the bonding layer and the conductive layer; wherein the conductive layer has higher standard oxidation potential than that of the bonding layer, wherein the first barrier layer comprises a plurality of first metal layers and a plurality of second metal layers alternately stacked, the material of the plurality of first metal layers is different from that of the plurality of second metal layers, and a thickness of each of the plurality of first metal layers is thicker than a thickness of each of the plurality of second metal layers. See '656 Patent, claim 1.

U.S. Patent No. 9,893,257

- 53. Epistar is the owner of U.S. Patent No. 9,893,257 (the "'257 Patent"), entitled "Electrode structure of light emitting device," which was duly and legally issued by the USPTO on February 13, 2018. A copy of the '257 Patent is attached hereto as Exhibit 9.
- 54. The application leading to the '257 Patent is continuation of the application that led to the '656 Patent. Thus, the '257 and the '656 Patents share the same specification. Epistar incorporates by reference and re-alleges paragraphs 49–52 of this First Amended Complaint as if fully set forth herein.
- 55. Like the '656 Patent, the '257 Patent relates generally to LEDs having an efficient electrode structure to improve their reliability.
- 56. For example, claim 16 of the '257 Patent recites *inter alia*, an LED comprising an electrode structure on a second semiconductor layer, wherein the electrode structure comprises an adhesion layer on the second semiconductor layer, a conductive layer on the adhesion layer, a bonding layer on the conductive layer, and a barrier layer between the bonding layer and the conductive layer, wherein the barrier comprises a third metal layer and a fourth metal layer, wherein the third metal layer is one to three times thicker than the fourth metal layer, and wherein the electrode structure comprises a center region and an edge region, a thickness of the barrier layer at the edge region of the electrode structure is smaller than that at the center region. *See* '257 Patent, claim 16.

U.S. Patent No. 10,038,129

- 57. Epistar is the owner of U.S. Patent No. 10,038,129 (the "'129 Patent"), entitled "Light emitting device," which was duly and legally issued by the USPTO on July 31, 2018. A copy of the '129 Patent is attached hereto as Exhibit 10.
- 58. The application leading to the '129 Patent is continuation of the application that led to the '257 and '656 Patents. Thus, the '129, '257 and '656 Patents share the same specification. Epistar incorporates by reference and re-alleges paragraphs 49–56 of this First Amended Complaint as if fully set forth herein.

- 59. Like the '257 and '656 Patents, the '129 Patent relates generally to LEDs having an efficient electrode structure to improve their reliability.
- 60. For example, claim 1 of the '129 Patent recites *inter alia*, an LED comprising an electrode structure on the second semiconductor layer, wherein the electrode structure comprises a conductive layer on a second semiconductor layer, a bonding layer on the conductive layer, and a first barrier layer between the bonding layer and the conductive layer, wherein the first barrier layer comprises a third metal layer and a fourth metal layer, the third metal layer or the fourth metal layer comprises a material selected from a group consisting of Cr, Pt, Ti, TiW, W, and Zn, wherein the bonding layer comprises a first metal, the conductive layer comprises a second metal, the second metal has higher standard oxidation potential than the first metal, and wherein a thickness of the conductive layer is 0.1~10 times a thickness of the bonding layer or a total thickness of the conductive layer and the bonding layer is 0.75~0.95 times a thickness of the electrode structure. *See* '257 Patent, claim 1.

U.S. Patent No. 8,963,123

- 61. Epistar is the owner of U.S. Patent No. 8,963,123 (the "123 Patent"), entitled "Light emitting diode with enhanced light extraction," which was duly and legally issued by the USPTO on February 24, 2015. A copy of the '123 Patent is attached hereto as Exhibit 11.
- 62. The '123 Patent relates generally to LEDs having an improved electrode structure to enhance light extraction. '123 Patent, 1:13–16.
- 63. The '123 Patent provides an unconventional LED design that can, for example, enhance illumination efficiency. Specifically, the '123 Patent discloses LEDs comprising, *inter alia*, two adjacent light-guiding structures that are separated from each other with a distance, which is denoted as dimension D. *Id.* at 4:49–51. Each of the light-guiding structures has a length L and a width W. *Id.* at 4:53–54. W is greater than a width of a finger electrode and L is greater than D. *Id.* at 4:54–56.
- 64. In line with these teachings, the '123 Patent claims devices comprising this technology innovation. For example, claim 15 of the '123 Patent recites, an LED comprising a

first contact electrode disposed on a second layer of a stacked semiconductor structure, wherein the first contact electrode comprising a first pad electrode and at least one first finger electrode extending from the first pad electrode; a second contact electrode disposed on a top surface of the first layer within an exposed region, wherein the second contact electrode comprising a second pad electrode and at least one second finger electrode extending from the second pad electrode; at least one light-guiding structure disposed under the first finger electrode; and a least two light-guiding structures separately disposed under the second finger electrode. *See* '123 Patent, claim 15.

U.S. Patent No. 9,425,362

- 65. Epistar is the owner of U.S. Patent No. 9,425,362 (the "'362 Patent"), entitled "Light emitting device," which was duly and legally issued by the USPTO on August 23, 2016. A copy of the '362 Patent is attached hereto as Exhibit 12.
- 66. The '362 Patent relates generally to LEDs made via a method of etching a protective layer. '362 Patent, 1:12–14.
- 67. The '362 Patent provides an unconventional LED design that can, for example, improve the uniformity of the transparent conductive layer. Specifically, the '362 Patent discloses LEDs comprising, *inter alia*, a sidewall inclined against a bottom surface at an acute angle. *Id.* at 3:13–15. The acute angle allows a transparent conductive layer to cover the side wall and a second region of the semiconductor layer uniformly. *Id.* at Abstract, 3:20–24.
- 68. In line with these teachings, the '362 Patent claims devices comprising this technology innovation. For example, claim 9 of the '362 Patent recites, an LED comprising a substrate; a light-emitting structure on the substrate comprising a first region and a second region; a barrier layer on the first region having a bottom surface and a sidewall, wherein an angle between the sidewall and the bottom surface is between 10°-70°; and a transparent conductive layer formed on the light-emitting structure and the barrier layer; wherein a difference between a thickness of the transparent conductive layer at the sidewall on the barrier layer and a thickness of the

transparent conductive layer on the second region of the light-emitting structure forms a ratio not larger than 10%. *See* '362 Patent, claim 9.

U.S. Patent No. 7,821,026

- 69. Epistar is the owner of U.S. Patent No. 7,821,026 (the "'026 Patent"), entitled "Light emitting diode device and manufacturing method thereof," which was duly and legally issued by the USPTO on October 26, 2010. A copy of the '026 Patent is attached hereto as Exhibit 13.
- 70. The '026 Patent relates generally to LED devices having a transparent conductive oxide stack structure. '026 Patent, 1:7-10.
- 71. The '026 Patent seeks to provide "a light-emitting diode having low contact resistance, efficient current spreading and better light efficiency with simpler processes." *Id.* at 2:7-9.
- 72. The LED structure in the '026 Patent includes a substrate, "a first type conductivity semiconductor layer, an active layer, a second type conductivity semiconductor layer, a transparent conductive oxide stack structure, a first electrode, and a second electrode." *Id.* at 2:13-17. The LED's transparent conductive oxide stack structure is formed on a semiconductor layer with a conductivity, and the stack structure has at least two resistant interfaces. *Id.* at 2:21-23.
- 73. In line with these teachings, the '026 Patent claims devices comprising this technology innovation. For example, claim 5 of the '026 Patent recites an LED structure comprising a substrate having a top surface and a lower surface opposite to the top surface; a second type conductivity semiconductor layer disposed on the top surface; an active layer disposed on the second type conductivity semiconductor layer; a first type conductivity semiconductor layer disposed on the active layer; a transparent conductive oxide stack structure having a plurality of transparent conductive layers and at least two resistant interfaces disposed on the first type conductivity semiconductor layer wherein any two adjacent layers of the plurality of transparent conductive layers having the same materials with different composition ratios; and

an electrode disposed on the transparent conductive oxide stack structure. *See* '026 Patent, claim 5.

COUNT I: INFRINGEMENT OF U.S. PATENT NO. 7,705,344

- 74. Epistar incorporates by reference and re-alleges paragraphs 1–20 of this First Amended Complaint as if fully set forth herein.
- 75. Amazon and users of Amazon devices such as 43" and 50" 4-Series and Omni Series Fire TVs have directly infringed (either literally or under the doctrine of equivalents) and continue to directly infringe at least claim 1 of the '344 Patent, in violation of 35 U.S.C. § 271(a), by making, using, offering for sale, and/or selling these devices within the United States and/or importing these devices into the United States without authority or license.
- 76. As just one non-limiting example, set forth in Exhibit A is an exemplary infringement claim chart for claim 1 of the '344 Patent in connection with a 43" 4-Series 4K UHD Amazon Fire TV. This claim chart is based on tear-down of a unit of the television purchased in the United States. Epistar reserves the right to modify this claim chart, including, for example, on the basis of information about Amazon devices that Epistar obtains during discovery.
- 77. Additionally and/or alternatively, Amazon has indirectly infringed and continues to indirectly infringe one or more of the claims of the '344 Patent, in violation of 35 U.S.C. § 271(b), by actively inducing users of the Amazon devices to directly infringe at least claim 1 of the '344 Patent. In particular, (a) Amazon had actual knowledge of the '344 Patent no later than the filing of this First Amended Complaint, (b) Amazon intentionally causes, urges, or encourages users of the Amazon devices to directly infringe at least claim 1 of the '344 Patent by promoting, advertising, and instructing customers and potential customers about the Amazon devices (including uses thereof) and encouraging such customers and potential customers to engage in activity that constitutes direct infringement, (c) Amazon knows (or should know) that its actions will induce users of the Amazon devices to directly infringe at least claim 1 the '344 Patent, and (d) users of the Amazon devices directly infringe at least claim 1 of the '344 Patent. For instance, at a minimum, Amazon has supplied and continues to supply the 43" and 50" 4-Series and Omni

Series Amazon Fire TVs to customers while knowing that installation and/or use of these televisions will infringe at least claim 1 of the '344 Patent, and that Amazon's customers then directly infringe at least claim 1 of the '344 Patent by using a unit of this television in accordance with Amazon's product literature.

- 78. Epistar is entitled to recover from Amazon all damages that Epistar has sustained as a result of Amazon's infringement of the '344 Patent, including, without limitation, a reasonable royalty and lost profits.
- 79. Amazon's infringement of the '344 Patent has caused irreparable harm (including the loss of market share) to Epistar and will continue to do so unless enjoined by this Court.

COUNT II: INFRINGEMENT OF U.S. PATENT NO. 9,530,934

- 80. Epistar incorporates by reference and re-alleges paragraphs 1–20 of this First Amended Complaint as if fully set forth herein.
- 81. Amazon and users of Amazon devices such as 43" and 50" 4-Series and Omni Series Fire TVs have directly infringed (either literally or under the doctrine of equivalents) and continue to directly infringe at least claim 1 of the '934 Patent, in violation of 35 U.S.C. § 271(a), by making, using, offering for sale, and/or selling these devices within the United States and/or importing these devices into the United States without authority or license.
- 82. As just one non-limiting example, set forth in Exhibit B is an exemplary infringement claim chart for claim 1 of the '934 Patent in connection with a 43" 4-Series 4K UHD Amazon Fire TV. This claim chart is based on tear-down of a unit of the television purchased in the United States. Epistar reserves the right to modify this claim chart, including, for example, on the basis of information about Amazon devices that Epistar obtains during discovery.
- 83. On July 22, 2019 and on February 28, 2022, Epistar corresponded with Amazon bringing to Amazon's attention that its products practiced without authority or license Epistar's patented inventions. Those correspondences identified the '934 Patent. Thus, Amazon had actual knowledge of the '934 Patent prior to Epistar filing this action.

- 84. Additionally and/or alternatively, Amazon has indirectly infringed and continues to indirectly infringe one or more of the claims of the '934 Patent, in violation of 35 U.S.C. § 271(b), by actively inducing users of the Amazon devices to directly infringe at least claim 1 of the '934 Patent. In particular, (a) Amazon had actual knowledge of the '934 Patent no later than July 22, 2019 when Epistar corresponded with Amazon regarding Amazon's use of Epistar's patented technology, (b) Amazon intentionally causes, urges, or encourages users of the Amazon devices to directly infringe at least claim 1 of the '934 Patent by promoting, advertising, and instructing customers and potential customers about the Amazon devices (including uses thereof) and encouraging such customers and potential customers to engage in activity that constitutes direct infringement, (c) Amazon knows (or should know) that its actions will induce users of the Amazon devices to directly infringe at least claim 1 the '934 Patent, and (d) users of the Amazon devices directly infringe at least claim 1 of the '934 Patent. For instance, at a minimum, Amazon has supplied and continues to supply the 43" and 50" 4-Series and Omni Series Amazon Fire TVs to customers while knowing that installation and/or use of these televisions will infringe at least claim 1 of the '934 Patent, and that Amazon's customers then directly infringe at least claim 1 of the '934 Patent by using a unit of this television in accordance with Amazon's product literature.
- 85. Epistar is entitled to recover from Amazon all damages that Epistar has sustained as a result of Amazon's infringement of the '934 Patent, including, without limitation, a reasonable royalty and lost profits.
- 86. Amazon's infringement of the '934 Patent has caused irreparable harm (including the loss of market share) to Epistar and will continue to do so unless enjoined by this Court.

COUNT III: INFRINGEMENT OF U.S. PATENT NO. 10,199,542

- 87. Epistar incorporates by reference and re-alleges paragraphs 1–20 of this First Amended Complaint as if fully set forth herein.
- 88. Amazon and users of Amazon devices such as 43" and 50" 4-Series and Omni Series Fire TVs have directly infringed (either literally or under the doctrine of equivalents) and continue to directly infringe at least claim 12 of the '542 Patent, in violation of 35 U.S.C. § 271(a),

by making, using, offering for sale, and/or selling these devices within the United States and/or importing these devices into the United States without authority or license.

- 89. As just one non-limiting example, set forth in Exhibit C is an exemplary infringement claim chart for claim 12 of the '542 Patent in connection with a 43" 4-Series 4K UHD Amazon Fire TV. This claim chart is based on tear-down of a unit of the television purchased in the United States. Epistar reserves the right to modify this claim chart, including, for example, on the basis of information about Amazon devices that Epistar obtains during discovery.
- 90. On July 22, 2019 and on February 28, 2022, Epistar corresponded with Amazon bringing to Amazon's attention that its products practiced without authority or license Epistar's patented inventions. Those correspondences identified the '542 Patent. Thus, Amazon had actual knowledge of the '542 Patent prior to Epistar filing this action.
- 91. Additionally and/or alternatively, Amazon has indirectly infringed and continues to indirectly infringe one or more of the claims of the '542 Patent, in violation of 35 U.S.C. § 271(b), by actively inducing users of the Amazon devices to directly infringe at least claim 12 of the '542 Patent. In particular, (a) Amazon had actual knowledge of the '542 Patent no later than July 22, 2019 when Epistar corresponded with Amazon regarding Amazon's use of Epistar's patented technology, (b) Amazon intentionally causes, urges, or encourages users of the Amazon devices to directly infringe at least claim 12 of the '542 Patent by promoting, advertising, and instructing customers and potential customers about the Amazon devices (including uses thereof) and encouraging such customers and potential customers to engage in activity that constitutes direct infringement, (c) Amazon knows (or should know) that its actions will induce users of the Amazon devices to directly infringe at least claim 12 the '542 Patent, and (d) users of the Amazon devices directly infringe at least claim 12 of the '542 Patent. For instance, at a minimum, Amazon has supplied and continues to supply the 43" and 50" 4-Series and Omni Series Amazon Fire TVs to customers while knowing that installation and/or use of these televisions will infringe at least claim 12 of the '542 Patent, and that Amazon's customers then directly infringe at least claim 12

of the '542 Patent by using a unit of this television in accordance with Amazon's product literature.

- 92. Epistar is entitled to recover from Amazon all damages that Epistar has sustained as a result of Amazon's infringement of the '542 Patent, including, without limitation, a reasonable royalty and lost profits.
- 93. Amazon's infringement of the '542 Patent has caused irreparable harm (including the loss of market share) to Epistar and will continue to do so unless enjoined by this Court.

COUNT IV: INFRINGEMENT OF U.S. PATENT NO. 10,505,076

- 94. Epistar incorporates by reference and re-alleges paragraphs 1–20 of this First Amended Complaint as if fully set forth herein.
- 95. Amazon and users of Amazon devices such as 43" and 50" 4-Series and Omni Series Fire TVs have directly infringed (either literally or under the doctrine of equivalents) and continue to directly infringe at least claim 12 of the '076 Patent, in violation of 35 U.S.C. § 271(a), by making, using, offering for sale, and/or selling these devices within the United States and/or importing these devices into the United States without authority or license.
- 96. As just one non-limiting example, set forth in Exhibit D is an exemplary infringement claim chart for claim 12 of the '076 Patent in connection with a 43" 4-Series 4K UHD Amazon Fire TV. This claim chart is based on tear-down of a unit of the television purchased in the United States. Epistar reserves the right to modify this claim chart, including, for example, on the basis of information about Amazon devices that Epistar obtains during discovery.
- 97. On February 28, 2022, Epistar corresponded with Amazon bringing to Amazon's attention that its products practiced without authority or license Epistar's patented inventions. That correspondence identified the '076 Patent. Thus, Amazon had actual knowledge of the '076 Patent prior to Epistar filing this action.
- 98. Additionally and/or alternatively, Amazon has indirectly infringed and continues to indirectly infringe one or more of the claims of the '076 Patent, in violation of 35 U.S.C. §

271(b), by actively inducing users of the Amazon devices to directly infringe at least claim 12 of the '076 Patent. In particular, (a) Amazon had actual knowledge of the '076 Patent no later than February 28, 2022 when Epistar corresponded with Amazon regarding Amazon's use of Epistar's patented technology, (b) Amazon intentionally causes, urges, or encourages users of the Amazon devices to directly infringe at least claim 12 of the '076 Patent by promoting, advertising, and instructing customers and potential customers about the Amazon devices (including uses thereof) and encouraging such customers and potential customers to engage in activity that constitutes direct infringement, (c) Amazon knows (or should know) that its actions will induce users of the Amazon devices to directly infringe at least claim 12 the '076 Patent, and (d) users of the Amazon devices directly infringe at least claim 12 of the '076 Patent. For instance, at a minimum, Amazon has supplied and continues to supply the 43" and 50" 4-Series and Omni Series Amazon Fire TVs to customers while knowing that installation and/or use of these televisions will infringe at least claim 12 of the '076 Patent, and that Amazon's customers then directly infringe at least claim 12 of the '076 Patent by using a unit of this television in accordance with Amazon's product literature.

- 99. Epistar is entitled to recover from Amazon all damages that Epistar has sustained as a result of Amazon's infringement of the '076 Patent, including, without limitation, a reasonable royalty and lost profits.
- 100. Amazon's infringement of the '076 Patent has caused irreparable harm (including the loss of market share) to Epistar and will continue to do so unless enjoined by this Court.

COUNT V: INFRINGEMENT OF U.S. PATENT NO. 9,257,604

- 101. Epistar incorporates by reference and re-alleges paragraphs 1–20 of this First Amended Complaint as if fully set forth herein.
- 102. Amazon and users of Amazon devices such as 43" and 50" 4-Series and Omni Series Fire TVs have directly infringed (either literally or under the doctrine of equivalents) and continue to directly infringe at least claim 1 of the '604 Patent, in violation of 35 U.S.C. § 271(a),

by making, using, offering for sale, and/or selling these devices within the United States and/or importing these devices into the United States without authority or license.

- 103. As just one non-limiting example, set forth in Exhibit E is an exemplary infringement claim chart for claim 1 of the '604 Patent in connection with a 43" 4-Series 4K UHD Amazon Fire TV. This claim chart is based on tear-down of a unit of the television purchased in the United States. Epistar reserves the right to modify this claim chart, including, for example, on the basis of information about Amazon devices that Epistar obtains during discovery.
- 104. On July 22, 2019 and February 28, 2022, Epistar corresponded with Amazon bringing to Amazon's attention that its products practiced without authority or license Epistar's patented inventions. That correspondence identified the '604 Patent. Thus, Amazon had actual knowledge of the '604 Patent prior to Epistar filing this action.
- Additionally and/or alternatively, Amazon has indirectly infringed and continues to indirectly infringe one or more of the claims of the '604 Patent, in violation of 35 U.S.C. § 271(b), by actively inducing users of the Amazon devices to directly infringe at least claim 1 of the '604 Patent. In particular, (a) Amazon had actual knowledge of the '604 Patent no later than July 22, 2019 when Epistar corresponded with Amazon regarding Amazon's use of Epistar's patented technology, (b) Amazon intentionally causes, urges, or encourages users of the Amazon devices to directly infringe at least claim 1 of the '604 Patent by promoting, advertising, and instructing customers and potential customers about the Amazon devices (including uses thereof) and encouraging such customers and potential customers to engage in activity that constitutes direct infringement, (c) Amazon knows (or should know) that its actions will induce users of the Amazon devices to directly infringe at least claim 1 the '604 Patent, and (d) users of the Amazon devices directly infringe at least claim 1 of the '604 Patent. For instance, at a minimum, Amazon has supplied and continues to supply the 43" and 50" 4-Series and Omni Series Amazon Fire TVs to customers while knowing that installation and/or use of these televisions will infringe at least claim 1 of the '604 Patent, and that Amazon's customers then directly infringe at least claim 1 of the '604 Patent by using a unit of this television in accordance with Amazon's product literature.

- 106. Epistar is entitled to recover from Amazon all damages that Epistar has sustained as a result of Amazon's infringement of the '604 Patent, including, without limitation, a reasonable royalty and lost profits.
- 107. Amazon's infringement of the '604 Patent has caused irreparable harm (including the loss of market share) to Epistar and will continue to do so unless enjoined by this Court.

COUNT VI: INFRINGEMENT OF U.S. PATENT NO. 10,181,549

- 108. Epistar incorporates by reference and re-alleges paragraphs 1–20 of this First Amended Complaint as if fully set forth herein.
- 109. Amazon and users of Amazon devices such as 43" and 50" 4-Series and Omni Series Fire TVs have directly infringed (either literally or under the doctrine of equivalents) and continue to directly infringe at least claim 1 of the '549 Patent, in violation of 35 U.S.C. § 271(a), by making, using, offering for sale, and/or selling these devices within the United States and/or importing these devices into the United States without authority or license.
- 110. As just one non-limiting example, set forth in Exhibit F is an exemplary infringement claim chart for claim 1 of the '549 Patent in connection with a 43" 4-Series 4K UHD Amazon Fire TV. This claim chart is based on tear-down of a unit of the television purchased in the United States. Epistar reserves the right to modify this claim chart, including, for example, on the basis of information about Amazon devices that Epistar obtains during discovery.
- 111. On February 28, 2022, Epistar corresponded with Amazon bringing to Amazon's attention that its products practiced without authority or license Epistar's patented inventions. That correspondence identified the '549 Patent. Thus, Amazon had actual knowledge of the '549 Patent prior to Epistar filing this action.
- 112. Additionally and/or alternatively, Amazon has indirectly infringed and continues to indirectly infringe one or more of the claims of the '549 Patent, in violation of 35 U.S.C. § 271(b), by actively inducing users of the Amazon devices to directly infringe at least claim 1 of the '549 Patent. In particular, (a) Amazon had actual knowledge of the '549 Patent no later than February 28, 2022 when Epistar corresponded with Amazon regarding Amazon's use of Epistar's

patented technology, (b) Amazon intentionally causes, urges, or encourages users of the Amazon devices to directly infringe at least claim 1 of the '549 Patent by promoting, advertising, and instructing customers and potential customers about the Amazon devices (including uses thereof) and encouraging such customers and potential customers to engage in activity that constitutes direct infringement, (c) Amazon knows (or should know) that its actions will induce users of the Amazon devices to directly infringe at least claim 1 the '549 Patent, and (d) users of the Amazon devices directly infringe at least claim 1 of the '549 Patent. For instance, at a minimum, Amazon has supplied and continues to supply the 43" and 50" 4-Series and Omni Series Amazon Fire TVs to customers while knowing that installation and/or use of these televisions will infringe at least claim 1 of the '549 Patent, and that Amazon's customers then directly infringe at least claim 1 of the '549 Patent by using a unit of this television in accordance with Amazon's product literature.

- 113. Epistar is entitled to recover from Amazon all damages that Epistar has sustained as a result of Amazon's infringement of the '549 Patent, including, without limitation, a reasonable royalty and lost profits.
- 114. Amazon's infringement of the '549 Patent has caused irreparable harm (including the loss of market share) to Epistar and will continue to do so unless enjoined by this Court.

COUNT VII: INFRINGEMENT OF U.S. PATENT NO. 10,522,715

- 115. Epistar incorporates by reference and re-alleges paragraphs 1–20 of this First Amended Complaint as if fully set forth herein.
- 116. Amazon and users of Amazon devices such as 43" and 50" 4-Series and Omni Series Fire TVs have directly infringed (either literally or under the doctrine of equivalents) and continue to directly infringe at least claim 1 of the '715 Patent, in violation of 35 U.S.C. § 271(a), by making, using, offering for sale, and/or selling these devices within the United States and/or importing these devices into the United States without authority or license.
- 117. As just one non-limiting example, set forth in Exhibit G is an exemplary infringement claim chart for claim 1 of the '715 Patent in connection with a 43" 4-Series 4K UHD Amazon Fire TV. This claim chart is based on tear-down of a unit of the television purchased in

the United States. Epistar reserves the right to modify this claim chart, including, for example, on the basis of information about Amazon devices that Epistar obtains during discovery.

- 118. On February 28, 2022, Epistar corresponded with Amazon bringing to Amazon's attention that its products practiced without authority or license Epistar's patented inventions. That correspondence identified the '715 Patent. Thus, Amazon had actual knowledge of the '715 Patent prior to Epistar filing this action.
- 119. Additionally and/or alternatively, Amazon has indirectly infringed and continues to indirectly infringe one or more of the claims of the '715 Patent, in violation of 35 U.S.C. § 271(b), by actively inducing users of the Amazon devices to directly infringe at least claim 1 of the '715 Patent. In particular, (a) Amazon had actual knowledge of the '715 Patent no later than February 28, 2022 when Epistar corresponded with Amazon regarding Amazon's use of Epistar's patented technology, (b) Amazon intentionally causes, urges, or encourages users of the Amazon devices to directly infringe at least claim 1 of the '715 Patent by promoting, advertising, and instructing customers and potential customers about the Amazon devices (including uses thereof) and encouraging such customers and potential customers to engage in activity that constitutes direct infringement, (c) Amazon knows (or should know) that its actions will induce users of the Amazon devices to directly infringe at least claim 1 the '715 Patent, and (d) users of the Amazon devices directly infringe at least claim 1 of the '715 Patent. For instance, at a minimum, Amazon has supplied and continues to supply the 43" and 50" 4-Series and Omni Series Amazon Fire TVs to customers while knowing that installation and/or use of these televisions will infringe at least claim 1 of the '715 Patent, and that Amazon's customers then directly infringe at least claim 1 of the '715 Patent by using a unit of this television in accordance with Amazon's product literature.
- 120. Epistar is entitled to recover from Amazon all damages that Epistar has sustained as a result of Amazon's infringement of the '715 Patent, including, without limitation, a reasonable royalty and lost profits.
- 121. Amazon's infringement of the '715 Patent has caused irreparable harm (including the loss of market share) to Epistar and will continue to do so unless enjoined by this Court.

COUNT VIII: INFRINGEMENT OF U.S. PATENT NO. 9,293,656

- 122. Epistar incorporates by reference and re-alleges paragraphs 1–20 of this First Amended Complaint as if fully set forth herein.
- 123. Amazon and users of Amazon devices such as 43" and 50" 4-Series and Omni Series Fire TVs have directly infringed (either literally or under the doctrine of equivalents) and continue to directly infringe at least claim 1 of the '656 Patent, in violation of 35 U.S.C. § 271(a), by making, using, offering for sale, and/or selling these devices within the United States and/or importing these devices into the United States without authority or license.
- 124. As just one non-limiting example, set forth in Exhibit H is an exemplary infringement claim chart for claim 1 of the '656 Patent in connection with a 43" 4-Series 4K UHD Amazon Fire TV. This claim chart is based on tear-down of a unit of the television purchased in the United States. Epistar reserves the right to modify this claim chart, including, for example, on the basis of information about Amazon devices that Epistar obtains during discovery.
- 125. Additionally and/or alternatively, Amazon has indirectly infringed and continues to indirectly infringe one or more of the claims of the '656 Patent, in violation of 35 U.S.C. § 271(b), by actively inducing users of the Amazon devices to directly infringe at least claim 1 of the '656 Patent. In particular, (a) Amazon had actual knowledge of the '656 Patent no later than the filing of the original Complaint, (b) Amazon intentionally causes, urges, or encourages users of the Amazon devices to directly infringe at least claim 1 of the '656 Patent by promoting, advertising, and instructing customers and potential customers about the Amazon devices (including uses thereof) and encouraging such customers and potential customers to engage in activity that constitutes direct infringement, (c) Amazon knows (or should know) that its actions will induce users of the Amazon devices to directly infringe at least claim 1 of the '656 Patent. For instance, at a minimum, Amazon has supplied and continues to supply the 43" and 50" 4-Series and Omni Series Amazon Fire TVs to customers while knowing that installation and/or use of these televisions will infringe at least claim 1 of the '656 Patent, and that Amazon's customers then

directly infringe at least claim 1 of the '656 Patent by using a unit of this television in accordance with Amazon's product literature.

- 126. Epistar is entitled to recover from Amazon all damages that Epistar has sustained as a result of Amazon's infringement of the '656 Patent, including, without limitation, a reasonable royalty and lost profits.
- 127. Amazon's infringement of the '656 Patent has caused irreparable harm (including the loss of market share) to Epistar and will continue to do so unless enjoined by this Court.

COUNT IX: INFRINGEMENT OF U.S. PATENT NO. 9,893,257

- 128. Epistar incorporates by reference and re-alleges paragraphs 1–20 of this First Amended Complaint as if fully set forth herein.
- 129. Amazon and users of Amazon devices such as 43" and 50" 4-Series and Omni Series Fire TVs have directly infringed (either literally or under the doctrine of equivalents) and continue to directly infringe at least claim 16 of the '257 Patent, in violation of 35 U.S.C. § 271(a), by making, using, offering for sale, and/or selling these devices within the United States and/or importing these devices into the United States without authority or license.
- 130. As just one non-limiting example, set forth in Exhibit I is an exemplary infringement claim chart for claim 16 of the '257 Patent in connection with a 43" 4-Series 4K UHD Amazon Fire TV. This claim chart is based on tear-down of a unit of the television purchased in the United States. Epistar reserves the right to modify this claim chart, including, for example, on the basis of information about Amazon devices that Epistar obtains during discovery.
- 131. On July 22, 2019, Epistar corresponded with Amazon bringing to Amazon's attention that its products practiced without authority or license Epistar's patented inventions. That correspondence identified the '257 Patent. Thus, Amazon had actual knowledge of the '257 Patent prior to Epistar filing this action.
- 132. Additionally and/or alternatively, Amazon has indirectly infringed and continues to indirectly infringe one or more of the claims of the '257 Patent, in violation of 35 U.S.C. §

271(b), by actively inducing users of the Amazon devices to directly infringe at least claim 16 of the '257 Patent. In particular, (a) Amazon had actual knowledge of the '257 Patent no later than July 22, 2019 when Epistar corresponded with Amazon regarding Amazon's use of Epistar's patented technology, (b) Amazon intentionally causes, urges, or encourages users of the Amazon devices to directly infringe at least claim 16 of the '257 Patent by promoting, advertising, and instructing customers and potential customers about the Amazon devices (including uses thereof) and encouraging such customers and potential customers to engage in activity that constitutes direct infringement, (c) Amazon knows (or should know) that its actions will induce users of the Amazon devices to directly infringe at least claim 16 the '257 Patent, and (d) users of the Amazon devices directly infringe at least claim 16 of the '257 Patent. For instance, at a minimum, Amazon has supplied and continues to supply the 43" and 50" 4-Series and Omni Series Amazon Fire TVs to customers while knowing that installation and/or use of these televisions will infringe at least claim 16 of the '257 Patent, and that Amazon's customers then directly infringe at least claim 16 of the '257 Patent by using a unit of this television in accordance with Amazon's product literature.

- 133. Epistar is entitled to recover from Amazon all damages that Epistar has sustained as a result of Amazon's infringement of the '257 Patent, including, without limitation, a reasonable royalty and lost profits.
- 134. Amazon's infringement of the '257 Patent has caused irreparable harm (including the loss of market share) to Epistar and will continue to do so unless enjoined by this Court.

COUNT X: INFRINGEMENT OF U.S. PATENT NO. 10,038,129

- 135. Epistar incorporates by reference and re-alleges paragraphs 1–20 of this First Amended Complaint as if fully set forth herein.
- 136. Amazon and users of Amazon devices such as 43" and 50" 4-Series and Omni Series Fire TVs have directly infringed (either literally or under the doctrine of equivalents) and continue to directly infringe at least claim 1 of the '129 Patent, in violation of 35 U.S.C. § 271(a),

by making, using, offering for sale, and/or selling these devices within the United States and/or importing these devices into the United States without authority or license.

- 137. As just one non-limiting example, set forth in Exhibit J is an exemplary infringement claim chart for claim 1 of the '129 Patent in connection with a 43" 4-Series 4K UHD Amazon Fire TV. This claim chart is based on tear-down of a unit of the television purchased in the United States. Epistar reserves the right to modify this claim chart, including, for example, on the basis of information about Amazon devices that Epistar obtains during discovery.
- 138. Additionally and/or alternatively, Amazon has indirectly infringed and continues to indirectly infringe one or more of the claims of the '129 Patent, in violation of 35 U.S.C. § 271(b), by actively inducing users of the Amazon devices to directly infringe at least claim 1 of the '129 Patent. In particular, (a) Amazon had actual knowledge of the '129 Patent no later than the filing of the original Complaint, (b) Amazon intentionally causes, urges, or encourages users of the Amazon devices to directly infringe at least claim 1 of the '129 Patent by promoting, advertising, and instructing customers and potential customers about the Amazon devices (including uses thereof) and encouraging such customers and potential customers to engage in activity that constitutes direct infringement, (c) Amazon knows (or should know) that its actions will induce users of the Amazon devices to directly infringe at least claim 1 the '129 Patent, and (d) users of the Amazon devices directly infringe at least claim 1 of the '129 Patent. For instance, at a minimum, Amazon has supplied and continues to supply the 43" and 50" 4-Series and Omni Series Amazon Fire TVs to customers while knowing that installation and/or use of these televisions will infringe at least claim 1 of the '129 Patent, and that Amazon's customers then directly infringe at least claim 1 of the '129 Patent by using a unit of this television in accordance with Amazon's product literature.
- 139. Epistar is entitled to recover from Amazon all damages that Epistar has sustained as a result of Amazon's infringement of the '129 Patent, including, without limitation, a reasonable royalty and lost profits.

140. Amazon's infringement of the '129 Patent has caused irreparable harm (including the loss of market share) to Epistar and will continue to do so unless enjoined by this Court.

COUNT XI: INFRINGEMENT OF U.S. PATENT NO. 8,963,123

- 141. Epistar incorporates by reference and re-alleges paragraphs 1–20 of this First Amended Complaint as if fully set forth herein.
- 142. Amazon and users of Amazon devices such as 43" and 50" 4-Series and Omni Series Fire TVs have directly infringed (either literally or under the doctrine of equivalents) and continue to directly infringe at least claim 15 of the '123 Patent, in violation of 35 U.S.C. § 271(a), by making, using, offering for sale, and/or selling these devices within the United States and/or importing these devices into the United States without authority or license.
- 143. As just one non-limiting example, set forth in Exhibit K is an exemplary infringement claim chart for claim 15 of the '123 Patent in connection with a 43" 4-Series 4K UHD Amazon Fire TV. This claim chart is based on tear-down of a unit of the television purchased in the United States. Epistar reserves the right to modify this claim chart, including, for example, on the basis of information about Amazon devices that Epistar obtains during discovery.
- 144. Additionally and/or alternatively, Amazon has indirectly infringed and continues to indirectly infringe one or more of the claims of the '123 Patent, in violation of 35 U.S.C. § 271(b), by actively inducing users of the Amazon devices to directly infringe at least claim 15 of the '123 Patent. In particular, (a) Amazon had actual knowledge of the '123 Patent no later than the filing of the original Complaint, (b) Amazon intentionally causes, urges, or encourages users of the Amazon devices to directly infringe at least claim 15 of the '123 Patent by promoting, advertising, and instructing customers and potential customers about the Amazon devices (including uses thereof) and encouraging such customers and potential customers to engage in activity that constitutes direct infringement, (c) Amazon knows (or should know) that its actions will induce users of the Amazon devices to directly infringe at least claim 15 the '123 Patent, and (d) users of the Amazon devices directly infringe at least claim 15 of the '123 Patent. For instance,

at a minimum, Amazon has supplied and continues to supply the 43" and 50" 4-Series and Omni Series Amazon Fire TVs to customers while knowing that installation and/or use of these televisions will infringe at least claim 15 of the '123 Patent, and that Amazon's customers then directly infringe at least claim 15 of the '123 Patent by using a unit of this television in accordance with Amazon's product literature.

- 145. Epistar is entitled to recover from Amazon all damages that Epistar has sustained as a result of Amazon's infringement of the '123 Patent, including, without limitation, a reasonable royalty and lost profits.
- 146. Amazon's infringement of the '123 Patent has caused irreparable harm (including the loss of market share) to Epistar and will continue to do so unless enjoined by this Court.

COUNT XII: INFRINGEMENT OF U.S. PATENT NO. 9,425,362

- 147. Epistar incorporates by reference and re-alleges paragraphs 1–20 of this First Amended Complaint as if fully set forth herein.
- 148. Amazon and users of Amazon devices such as 43" and 50" 4-Series and Omni Series Fire TVs have directly infringed (either literally or under the doctrine of equivalents) and continue to directly infringe at least claim 9 of the '362 Patent, in violation of 35 U.S.C. § 271(a), by making, using, offering for sale, and/or selling these devices within the United States and/or importing these devices into the United States without authority or license.
- 149. As just one non-limiting example, set forth in Exhibit L is an exemplary infringement claim chart for claim 9 of the '362 Patent in connection with a 43" 4-Series 4K UHD Amazon Fire TV. This claim chart is based on tear-down of a unit of the television purchased in the United States. Epistar reserves the right to modify this claim chart, including, for example, on the basis of information about Amazon devices that Epistar obtains during discovery.
- 150. On July 22, 2019, Epistar corresponded with Amazon bringing to Amazon's attention that its products practiced without authority or license Epistar's patented inventions. That correspondence identified the '362 Patent. Thus, Amazon had actual knowledge of the '362 Patent prior to Epistar filing this action.

- 151. Additionally and/or alternatively, Amazon has indirectly infringed and continues to indirectly infringe one or more of the claims of the '362 Patent, in violation of 35 U.S.C. § 271(b), by actively inducing users of the Amazon devices to directly infringe at least claim 9 of the '362 Patent. In particular, (a) Amazon had actual knowledge of the '362 Patent no later than July 22, 2019 when Epistar corresponded with Amazon regarding Amazon's use of Epistar's patented technology, (b) Amazon intentionally causes, urges, or encourages users of the Amazon devices to directly infringe at least claim 9 of the '362 Patent by promoting, advertising, and instructing customers and potential customers about the Amazon devices (including uses thereof) and encouraging such customers and potential customers to engage in activity that constitutes direct infringement, (c) Amazon knows (or should know) that its actions will induce users of the Amazon devices to directly infringe at least claim 9 the '362 Patent, and (d) users of the Amazon devices directly infringe at least claim 9 of the '362 Patent. For instance, at a minimum, Amazon has supplied and continues to supply the 43" and 50" 4-Series and Omni Series Amazon Fire TVs to customers while knowing that installation and/or use of these televisions will infringe at least claim 9 of the '362 Patent, and that Amazon's customers then directly infringe at least claim 9 of the '362 Patent by using a unit of this television in accordance with Amazon's product literature.
- 152. Epistar is entitled to recover from Amazon all damages that Epistar has sustained as a result of Amazon's infringement of the '362 Patent, including, without limitation, a reasonable royalty and lost profits.
- 153. Amazon's infringement of the '362 Patent has caused irreparable harm (including the loss of market share) to Epistar and will continue to do so unless enjoined by this Court.

COUNT XIII: INFRINGEMENT OF U.S. PATENT NO. 7,821,026

- 154. Epistar incorporates by reference and re-alleges paragraphs 1–20 of this First Amended Complaint as if fully set forth herein.
- 155. Amazon and users of Amazon devices such as 43" and 50" 4-Series and Omni Series Fire TVs have directly infringed (either literally or under the doctrine of equivalents) and continue to directly infringe at least claim 5 of the '026 Patent, in violation of 35 U.S.C. § 271(a),

by making, using, offering for sale, and/or selling these devices within the United States and/or importing these devices into the United States without authority or license.

- 156. As just one non-limiting example, set forth in Exhibit M is an exemplary infringement claim chart for claim 5 of the '026 Patent in connection with a 43" 4-Series 4K UHD Amazon Fire TV. This claim chart is based on tear-down of a unit of the television purchased in the United States. Epistar reserves the right to modify this claim chart, including, for example, on the basis of information about Amazon devices that Epistar obtains during discovery.
- 157. Additionally and/or alternatively, Amazon has indirectly infringed and continues to indirectly infringe one or more of the claims of the '026 Patent, in violation of 35 U.S.C. § 271(b), by actively inducing users of the Amazon devices to directly infringe at least claim 5 of the '026 Patent. In particular, (a) Amazon had actual knowledge of the '026 Patent no later than the filing of this First Amended Complaint, (b) Amazon intentionally causes, urges, or encourages users of the Amazon devices to directly infringe at least claim 5 of the '026 Patent by promoting, advertising, and instructing customers and potential customers about the Amazon devices (including uses thereof) and encouraging such customers and potential customers to engage in activity that constitutes direct infringement, (c) Amazon knows (or should know) that its actions will induce users of the Amazon devices to directly infringe at least claim 5 the '026 Patent, and (d) users of the Amazon devices directly infringe at least claim 5 of the '026 Patent. For instance, at a minimum, Amazon has supplied and continues to supply the 43" and 50" 4-Series and Omni Series Amazon Fire TVs to customers while knowing that installation and/or use of these televisions will infringe at least claim 5 of the '026 Patent, and that Amazon's customers then directly infringe at least claim 5 of the '026 Patent by using a unit of this television in accordance with Amazon's product literature.
- 158. Epistar is entitled to recover from Amazon all damages that Epistar has sustained as a result of Amazon's infringement of the '026 Patent, including, without limitation, a reasonable royalty and lost profits.

159. Amazon's infringement of the '026 Patent has caused irreparable harm (including the loss of market share) to Epistar and will continue to do so unless enjoined by this Court.

PRAYER FOR RELIEF

WHEREFORE, Epistar respectfully requests:

- A. That judgment be entered that Amazon has infringed at least one or more claims of the patents-in-suit, directly and/or indirectly, literally and/or under the doctrine of equivalents;
- B. An injunction enjoining Amazon, its officers, agents, servants, employees and attorneys, and other persons in active concert or participation with Amazon, and its parents, subsidiaries, divisions, successors and assigns, from further infringement of the patents-in-suit.
- C. An award of damages sufficient to compensate Epistar for Amazon's infringement under 35 U.S.C. § 284;
- D. An award of prejudgment and post-judgment interest; and
- E. Such other and further relief as the Court may deem just and proper.

DEMAND FOR JURY TRIAL

Pursuant to Rule 38(b) of the Federal Rules of Civil Procedure, Epistar respectfully demands a trial by jury on all issues triable by jury.

Dated: November 17, 2022

/s/ Mark D. Siegmund

Mark D. Siegmund Texas Bar No. 24117055

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STECKLER WAYNE CHERRY & LOVE, PLLC

8416 Old McGregor Road Waco, Texas 76712

Telephone: 254-651-3690

Facsimile: 254-651-3689 mark@swclaw.com

Jeffrey L. Johnson

Texas Bar No. 24029638

ORRICK, HERRINGTON & SUTCLIFFE LLP

609 Main Street, 40th Floor Houston, TX 77002

Telephone: 713.658.6400 Facsimile: 713.658.6401

jj@orrick.com

Robert J. Benson (*pro hac vice*) California Bar No. 155971

ORRICK, HERRINGTON & SUTCLIFFE LLP

2050 Main Street, Suite 1100

Irvine, CA 92614

Telephone: 949.567.6700 Facsimile: 949.567.6710 rbenson@orrick.com

ATTORNEYS FOR PLAINTIFF EPISTAR CORPORATION

CERTIFICATE OF SERVICE

In accordance with Federal Rule of Civil Procedure 5 and Local Rule CV-5, I hereby certify that all counsel of record who are deemed to have consented to electronic service are being served with a copy of this document through the Court's CM/ECF system on November 17, 2022.

/s/ Mark D. Siegmund

Mark D. Siegmund